

## Preparedness and Planning

### Public Health Preparedness and Response: One of Public Health's Great Achievements Over the Last Decade

The May 20, 2011 issue of CDC's [Morbidity and Mortality Weekly Report](#) (MMWR) lists ten of the great public health advances from 2001-2010, including public health preparedness and response. The report stated that "after the international and domestic terrorist actions of 2001 highlighted gaps in the nation's public health preparedness, tremendous improvements have been made." Improvements in laboratory, epidemiology, surveillance and response capabilities were specifically mentioned, as well as the public health response to the 2009 H1N1 pandemic, which prevented an estimated 5-10 million cases of H1N1 flu.

### Absence of Smallpox "Take" May Not Indicate Revaccination Failure

Successful vaccination against smallpox is generally determined by inspection of the vaccine site approximately one week after vaccination. Vesicles and pustules at the site are considered to be indicative of a successful vaccine take. However, it is not clear if the absence of a take represents vaccine failure, i.e., a failure to induce immunity, or if it represents just a lack of visible evidence of a successful vaccination. Wiser and colleagues conducted a [study](#) of members of the Israeli Defense Forces (IDF) to assess the ability of surrogate immunological markers to assess vaccination results in those revaccinated against smallpox.



### New Hospital Preparedness Program Report Available

HHS ASPR released *From Hospitals to Healthcare Coalitions: Transforming Health Preparedness and Response in Our Communities*, the program's first [state-by-state report](#) that identifies advances states have made in preparing hospitals for all types of disasters. The report discusses the next steps the program will take to boost community resilience. All states, eight U.S. territories and four large metropolitan areas participate in the cooperative agreement grant program which provides federal funds, technical assistance, and guidelines for hospital preparedness. Of the more than 6,300 hospitals across the nation, more than 85 percent take advantage of the program.

### AHRQ Emergency Preparedness Resource Inventory (EPRI): A Tool for Local, Regional, and State Planners

The Second Generation of the [Emergency Preparedness Resource Inventory](#) (EPRI) is available. EPRI is a database and communication system designed to help cities, counties, states, or regions determine what resources are available during an emergency. In addition to a Web-based software tool, EPRI includes an Administrator's Guide and a User's Manual.

## News

### IAEA Preliminary Report on the Japanese Nuclear Power Plant Accident

The International Atomic Energy Agency (IAEA) published a preliminary [report](#) on the nuclear power plant accident in Japan following the earthquake and subsequent tsunami. The full report is available online.

### Sixth CDC Learning Connection Spotlight for 2011: Heat Related Illness

The [Heat Related Illness Spotlight](#) provides public health learning products and resources designed to help the public health community prevent heat related illness.

### Scientific Investigation During Emergencies Could Improve Capabilities

This National Biodefense Science Board (NBSB) [report](#) is a call to action for the U.S. Government to include scientific investigations as an integral component of emergency preparedness and response efforts, arguing that scientific investigations should be integrated into disaster planning and response.

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### **Public Health Practices Newly Re-designed Site**

[Public Health Practices](#) is a joint project of the Center for Infectious Disease Research and Policy (CIDRAP) in partnership with the Association of State and Territorial Health Officials (ASTHO). The new site integrates ASTHO's "Useful Practices" with CIDRAP's "Promising Practices." Its mission is to serve as a one-stop shop for tools and strategies to respond to the health consequences of disasters and emergencies.

### **More Focus Needed on Mental Health Triage in Disaster Preparedness**

Johns Hopkins bioethicists state that [disaster planning](#) has not generally included the needs of individuals with pre-existing mental conditions such as schizophrenia, dementia, addictions and bipolar disorder. They recommend providing information to first responders on how to interact with these individuals and using community volunteers to provide temporary mental health services immediately after a disaster.

### **DHS Cuts Grants by \$780 Million in FY2011**

This month DHS released the [FY 2011 grant guidance](#) for the Homeland Security Grant Program. The funding for states, territories, urban areas, tribal governments, nonprofit and private sectors totals \$2.1 billion, a 25% cut from FY 2010.

### **Response Drills for Foot and Mouth Disease Begin Next Week**



Image: Graur Razvan Ionut/  
FreeDigitalPhoto.net

Dairy Management, Inc., in partnership with dairy producers, co-ops, and other livestock industry organizations, will be holding a series of [response drills](#) for an outbreak of foot and mouth disease. This has been cited as a possible threat for agroterrorism, and representatives from the USDA, EPA, DHS, FBI and FDA will be participating.

Scientific Investigation During Emergencies Could Improve Capabilities

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preparedness and response efforts, arguing that scientific investigations should be integrated into disaster planning and response.

## **Surveillance**

### **Monitoring Influenza Activity in the United States: A Comparison of Traditional Surveillance Systems with Google Flu Trends**

Researchers studied [Google Flu Trends](#) data to gauge a correlation with actual influenza surveillance data. Data from three US surveillance systems were collected between 2003 and 2008, and compared to data from Google Flu Trends. Research showed Google Flu Trends data correlated highly with CDC Outpatient ILI Surveillance Network data but a lower correlation with US Influenza Virologic Surveillance System data. The authors state that Google Flu Trends only tracks influenza like illness and not laboratory confirmed influenza cases which they suggest may be the reason for the findings. The full study is available online

### **The Use of Twitter to Track Levels of Disease Activity and Public Concern in the U.S. during the Influenza A H1N1 Pandemic**

According to researchers in PLoS One, data embedded in Twitter may be useful for [tracking health trends](#) as well as public information about health-related subjects. Researchers collected data from April 2009 that contained several key words including: flu, swine, H1N1, and influenza. This data was then compared to CDC ILI surveillance data. The research shows that Twitter traffic can be used not only to track users' interest and concerns related to H1N1 influenza, but also to estimate disease activity in real time. They suggest more studies are needed to validate the results.

# Communication

## **The Risk Communicator Newsletter**

No matter what the budget and the available technology, risk communicators are finding creative ways to reach their audiences. The current issue of [The Risk Communicator](#) explores the use of technology and creativity in emergency communication responses.

## **What Motivates People to Prepare, or Not Prepare, for Natural Disasters?**

The University of Pennsylvania's Wharton Business School, looks at the question "what motivates individuals to listen to warnings and act" using the virtual world as a laboratory. Robert Meyer developed an [interactive simulation to study](#) and found the group that was bombarded with news about very bad storms actually prepared less in the simulation that followed than the other group. According to Meyer, "You have a crowding out effect with disasters."

## **American Red Cross Using Technology to Help People Prepare**

The Red Cross has developed a [free iPhone app](#) that gives the location of all open Red Cross shelters. The app not only maps the location of a shelter, but also shows current capacity and population. To download the app, users can visit the Apple store and search "American Red Cross shelters." For those without an iPhone, the same shelter information is available online at [www.redcross.org](http://www.redcross.org), click on "Find a Shelter." Both are refreshed with updated information every 30 minutes. Read more in the Red Cross press release

## **New York City Unveils First-in-the-Nation Public Safety System with Leading Wireless Providers**



Image: Bulldogza/  
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NYC Mayor Michael Bloomberg, Federal Emergency Management Agency, Federal Communications Commission and top executives from AT&T, Sprint, T-Mobile and Verizon and others convened at the World Trade Center site to announce PLAN--the [Personal Localized Alerting Network](#). PLAN is a free service that will allow customers with an enabled mobile device to receive geographically-targeted, text-like messages alerting them of imminent threats to safety in their area without getting stalled by user congestion. Authorized government officials can send messages, which participating wireless providers then push using their cell towers to enabled mobile devices in a targeted geographic area.

# Pandemic Planning

## **Mexican Flu Pandemic Study Supports Social Distancing**

A Fogarty researcher at Arizona State University found that social distancing measures reduced influenza [transmission rates](#) in Mexico by 29 to 37 percent. Among other measures, Mexico implemented a mandatory 18-day school closure policy in the spring of 2009.

## **Preventing Transmission of Pandemic Influenza and Other Viral Respiratory Diseases: Personal Protective Equipment for Healthcare Workers: Update 2010**

The Institute of Medicine published an update on personal protective equipment (PPE) for healthcare workers. In 2009, the H1N1 influenza

pandemic brought to the forefront the many unknowns about the virulence, spread, and nature of the virus. The Institute of Medicine assesses the progress of [PPE research](#) and identifies future directions for PPE for healthcare personnel. The book is available online.

### **Web query-based surveillance in Sweden during the influenza A(H1N1)2009 pandemic, April 2009 to February 2010**

In Eurosurveillance, researchers at the Swedish Institute of Communicable Disease Control tested statistical models that were based off of queries submitted to a Swedish medical website. These models have previously been used for seasonal influenza and the researchers are applying them to 2009 H1N1 pandemic influenza. Their data shows that the model works well with pandemic influenza as well as seasonal influenza in supplementing surveillance data. The researchers say the model was equivalent to Google Flu Trends data for Sweden in predicting influenza activity. The full article is available [online](#).

### **Use of Antiviral Drugs to Reduce Household Transmission of Pandemic (H1N1)**

In the United Kingdom, the containment strategy for Pandemic (H1N1) 2009 influenza was to provide antiviral treatment to both the patient and their families. In [Emerging Infectious Diseases](#), authors study how well this process prevented household transmission of influenza. They performed an observational cohort study following 285 primary cases in 259 households with 761 contacts. The research showed that after two weeks, antiviral treatment reduced the secondary attack rate for influenza from 10.6% to 4.5%. They found that antiviral prophylaxis was 92% effective in preventing infection from influenza. The full study is available online.

### **Pandemic (H1N1) 2009 Risk for Frontline Health Care Workers**

Authors in [Emerging Infectious Diseases](#) determined whether frontline healthcare workers were more at risk to contract Pandemic (H1N1) 2009 influenza than non-clinical workers. They conducted a [cohort study](#) of 231 healthcare workers with non-clinical workers from four hospitals in metropolitan Melbourne, Australia. The research showed that working in intensive care and having a high number of children were risk factors for infection. However, overall healthcare workers were no more likely to contract Pandemic (H1N1) 2009 influenza than non-clinical workers. The full study is available online.

### **Characterizing the Epidemiology of the 2009 Influenza A/H1N1 Pandemic in Mexico**

Authors in [PLoS Medicine](#) analyzed [epidemiological patterns](#) during the 2009 H1N1 pandemic in Mexico and evaluated the impact of non-medical interventions, school cycles, and demographic factors on influenza transmission. They utilized surveillance data compiled by the Mexican Institute for Social Security for a total of 117,626 influenza-like illness cases in three waves between April and December 2009. They then used a mathematical model to assess non-medical interventions. The data shows during mandatory school closure there was a substantial reduction in influenza transmission. The researchers suggest that school closure and large gathering suspension are effective ways of mitigating influenza virus spread. The full study is available online.

## **Regional News**

### **Region 6 HPP Update: Continued Focus on Education, Real-Life Event Cooperation**

Region 6 Hospital Preparedness Program partners continue to focus on classroom and hands-on education sessions: a practical session hosted by



the Muskegon County MCA held in May 2011 was a unique training event for regional first responders designed to increase responder awareness of suicide by chemical poisoning in a car. Prompted by a chemical suicide in the northern part of the region earlier in the year, the training taught strategies to safely approach and mitigate these types of emergencies.

Region 6 staff and partners continue to use planned events as opportunities to use training and physical resources to enhance the safety of responders and the public. Grand Rapids Metropolitan Medical Response and Life EMS staff coordinated the movement and use of a disaster response trailer during the recent Grand Rapids Festival of the Arts which was attended by an estimated 400,000 plus people. Life EMS staff used equipment, the trailer awning, and its air conditioning to cool several festival patrons and to enhance treatment of other minor medical needs. Medics indicated several festival patrons were transported by ambulance to Grand Rapids hospitals.

The Newaygo County Emergency Services Office, Spectrum Health Gerber Hospital, several Newaygo County fire departments, Life EMS, 911 Dispatch Center, the National Weather Service, Region 6 staff, the Newaygo County Medical Control Authority and a long list of others are fine-tuning emergency and medical response plans to support a national canoe race to be hosted by Newaygo in August 2011. Thousands of racers, spectators, supporters and the curious will flock to Newaygo and the Muskegon River for this premier annual paddle competition.

For more information, contact: Tim Bulson at [tbulson@mcmca.org](mailto:tbulson@mcmca.org)

### **Region 7 Update: Regional Improvised Explosive Device (IED) Exercise**

On May 18, 2011, Emergency management Homeland Security District 7 (EMHSD-7) and the Region 7 Medical Disaster Preparedness Network (R7 MDPN) jointly sponsored a day-long, multi-jurisdictional IED exercise that marked the culmination of several months of planning and preparation across 17 counties and 8,824 square miles. The exercise involved more than 400 participants at 30 sites, including 11 hospitals and 15 county Emergency Operating Centers (EOC) throughout the region.

The Region 7 IED Exercise was designed to test several disaster response capabilities including: communications, command center management, medical surge capacity as well as IED response and hazardous materials decontamination. A number of strengths and opportunities for improvement were identified:

#### **Strengths:**

- Positive working relationships,
- Strong inter-disciplinary communications,
- Flexibility and resourcefulness to meet Medical surge demands,
- Auxiliary response assets that can be rapidly deployed,
- Ability to utilize technology for collection synthesis of information

#### **Improvement Opportunities:**

- Need to improve situational awareness through enhanced briefings,
- Communications limitations associated with existing EOC/HCC locations,
- Training opportunities regarding communications protocols and tools,
- Development of a regional multi-year training and exercise plan

For more information, contact: Mary Fox at [region7btc@gmail.com](mailto:region7btc@gmail.com)

## Other News

### **Preventing the Next Fukushima**

A former advisor in the White House Office of Science and Technology Policy provided [five recommendations](#) for the world community in radiation preparedness. These include actions to: adopt higher safety standards, provide protection from both accidents and terrorist incidents, and improve emergency preparedness and response systems near nuclear facilities.

### **Preparedness, Response, and Resilience Task Force Interim Report on Resilience**

The George Washington University Homeland Security Policy Institute (HSPI) released the [Interim Report](#) of its Preparedness, Response, and Resilience Task Force. This report focuses on resilience and recovery from disasters. The report also contains recommendations for Federal policymaker in order to increase the resilience of this country. The full report is available online

### **Federal Government Continues To Support Central U.S. States In Tornado Response**

FEMA provides an update the federal government's continued support to the state and local responses to the [tornadoes and storms](#) that have recently struck Missouri, Oklahoma, Arkansas and other states in the Midwest.

## Training & Education

### **National Academies Press (NAP) Announce All PDF Books Free to Download**

As of June 2, 2011, all PDF versions of books published by NAP will be downloadable [free of charge](#) to anyone. This includes the current catalog of more than 4,000 books plus future reports published by NAP. Free access to the online content supports the mission of NAP to improve government decision making and public policy, increase public education and understanding, and promote the acquisition and dissemination of knowledge in matters involving science, engineering, technology, and health.

### **University of North Carolina Center for Public Health Preparedness Training Web Site**

This site offers free short [Internet-based trainings](#) developed by the UNC Center for Public Health Preparedness (CPHP) on public health preparedness topics such as disease surveillance, basic epidemiology, bioterrorism, pandemic illness and new/emerging disease agents.

### **"Just in Time" training sponsored by the Columbia University Regional Learning Center.**

Dr. David Brenner, Director of the Center for Radiological Research at the Columbia University Medical Center, provides a 36 minute [video primer](#) on radiation exposure, addressing the scientific facts and common misconceptions. His discussion focuses on the damage at the Fukushima Daiichi nuclear power plant in Japan as well as the implications of the catastrophe on radiation preparedness efforts in the U.S.

### **Mapping and Tracking Vulnerable Populations Using Geospatial Technologies**

40 minute [online course](#) covering: distribution of hazards and the capacity of populations to prepare for, respond to, cope with, or recover from a hazard event. GIS tools, spatial analysis, and vulnerability assessments will be used to identify priorities, inform evidence based decisions, and target preparedness measures, while highlighting areas with potential for uneven recovery.

Date/Time	Event	Location
Jun 22, 2011/ 2:00 - 3:00PM (EDT)	<b>Webinar - Planning for the Whole Community.</b> The Office of Disability Integration and Coordination (ODIC), a new FEMA/DHS division, has been working diligently since 2010 to re-design how emergency management defines and serves those persons with access and functional needs in our communities in case of disasters. <a href="#">The new paradigm</a> works toward the notion that all segments of American society will be integrated and served through a single and inclusive emergency management approach. Panelists will discuss important elements of the planning process; public communication needs for non-English speaking, visual and hearing impaired, and others; evacuation challenges, sheltering needs, and some of the work being done to aid in disaster recovery.	Online
Jun 29, 2011	<b>MI Food &amp; Agriculture Border Gateway Summit</b> With funding support from the Department of Homeland Security, Urban Area Security Initiative, Michigan will host a <a href="#">one day seminar</a> in Southeast Michigan focusing on the food and agriculture sector. U.S. and Canadian agencies and businesses involved with the varied components of producing, selling, transporting, and protecting food and agriculture will provide information about current challenges and future trends, and attendees from local, state, and federal agencies as well as Canadian officials and the private sector will interact and better understand the risks, consequences, and opportunities related to this Critical Infrastructure Sector.	Schoolcraft Community College-Vista Tech Center Livonia, MI
Jul 6, 2011	<b>2011 Chemical Security Summit</b> The <a href="#">fifth annual summit</a> will provide a forum for representatives from the chemical community to exchange information and network with other security professionals, to share best practices, to find out about chemical security regulations, and to gain insight into the roles of state, local, and federal agencies and departments involved in chemical security.	Baltimore, MD
Jul 20-22, 2011	<b>9th Annual BioDefense Vaccines &amp; Therapeutics Conference</b> Learn the latest about the Federal government's biodefense medical countermeasures research, development and procurement initiatives, and insights into potential legislative changes. Furthermore, and equally important, learn the potential impact of all these changes on the biodefense industry. The <a href="#">conference</a> will feature 49 leading experts from government agencies such as Department of Health and Human Services, Defense Advanced Research Projects Agency, Department of Defense, and U.S. Army Medical Research and Material Command, and other key players in the CBRN (chemical, biological, radiological, and nuclear) community as they explore strategies for furthering the development of needed medical countermeasures.	Almas Temple Club Washington, DC

Date/Time	Event	Location
August 9-11, 2011	<b>National Conference on Health Communications, Marketing, and Media</b> The Fifth Annual <u>National Conference on Health Communications, Marketing, and Media</u> brings together academics, public health researchers, and practitioners from Federal and state government and the private sector, and provides a forum for collegial dialogue within and across these disciplines. The conference provides an excellent opportunity to meet with colleagues and shape the future of health communications, marketing, and media practice. Sponsors: Office of the Associate Director for Communication, CDC; SAMHSA; National Cancer Institute; and National Public Health Information Coalition.	Omni Hotel Atlanta, GA
August 11-12, 2011  Application Deadline: July 5, 2011	<b>Health Impact Assessment Training Opportunity.</b> Application Deadline: July 5, 2011 The Michigan Department of Community Health is accepting applications to attend a <u>free Health Impact Assessment (HIA) training</u> for public health professionals and planners. The training is designed to bring together public health professionals and city/county planners to learn how to use HIA methodology to determine the health impacts of projects and policies. MDCH is encouraging teams of two to four individuals including at least one person from the local health department and one from the community's planning department to attend together so that each discipline can share its perspective, and relationships can be built between planning and public health. For more information or to apply: <a href="http://www.michigan.gov/climateandhealth">www.michigan.gov/climateandhealth</a>	R.A. MacMullan Conference Center Roscommon, MI



Mailing Address:  
 Office of Public Health Preparedness  
 Capitol View Building - 201 Townsend Street - Lansing, MI 48913  
 (517) 335-8150 — <http://www.michigan.gov/ophp>



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